

Title (en)
LIQUID ATOMIZER AND FIRE-EXTINGUISHER

Title (de)
FLÜSSIGKEITSZERSTÄUBER UND FEUERLÖSCHER

Title (fr)
PULVERISATEUR DE LIQUIDE ET EXTINCTEUR D'INCENDIE

Publication
EP 1833615 A1 20070919 (EN)

Application
EP 05759624 A 20050530

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Abstract (en)
[origin: WO2005123264A1] A liquid atomizer comprises a housing (12), a centrifugal liquid stream swirl unit, and a nozzle (17) with a profiled channel. The centrifugal swirl unit is configured as a hollow cylindrical insert (16) with an inlet axial channel (21) and tangentially oriented inlet channels (22) provided in the side wall of the insert (16). The cross-sectional sizes of the inlet channels of the centrifugal swirl unit are selected on the condition that: $4S_a \leq St \leq 6S_a$, where St is a total cross-sectional area of the tangentially oriented channels (22), S_a is a cross-sectional area of the axial channel (21). A fire-extinguisher comprises a reservoir filled with a fire-extinguishing liquid, a system for replacing the liquid from the reservoir and a liquid atomizer including a centrifugal liquid stream swirl unit and a nozzle (17). During operation, a high-velocity gas-droplet jet is generated with droplets of uniform size and a stable spray cone angle.

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